

IN THE SPECIFICATION

Please replace the Abstract of the Specification with the following amended

Abstract:

One aspect of the invention provides a novel scheme to improve channel jitter tolerance and perform data recovery across a serial data channel. In one implementation, the invention samples each data unit in the data channel multiple times and, using two data cycles, selects one of the samples as representative of the data unit. According to one aspect, the invention performs edge detection between adjacent data samples to determine the location of transitions between data units (bits). A representative data sample point is chosen which is as far away as possible from the detected edge and the next expected edge and yet is also adjacent to, or equal to, the ideal current sample point. According to another aspect of the invention, as between two equally possible samples, the algorithm selects the sample point within the current cycle, which is furthest from the distribution of prior cycle edges.

Please replace paragraph 0001 with the following:

The invention pertains generally to serial data reception. More particularly, the invention relates to a method, apparatus, and system for extracting the correct data from a jittering data stream by using over-sampled data collected over two cycles.

Please replace paragraph 0014 with the following:

One aspect of the invention provides a data recovery algorithm which improves data extraction from a jittering and/or frequency-offset data stream by over-sampling the data stream, ~~determine~~ determining the edges closest to the ideal current sample point, and ~~select~~ selecting the actual sample point based on the previous and current data unit cycle samples.

Please replace paragraph 0022 with the following:

For each cycle, the edge detector generates the location where the edges occurred between samples. For example, if data sample d3 was logic low (0), and data sample d4 was logic high (1), the edge detector 204 would indicate an edge occurred between d3 and d4.

Please replace paragraph 0040 with the following:

A conditional state occurs where two states are equally likely under the algorithm described above. For example, if the ideal current state is S2 and $d2 \oplus d3$ is the only edge, then s3 and s1 are equally likely. According to one implementation, one of the two possible states is chosen arbitrarily when this condition occurs.